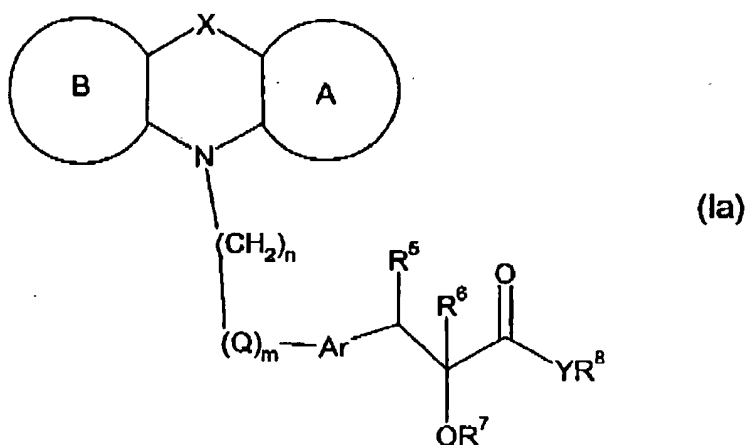


Serial Number 09/995,137
Express Mail Number: EV 246877568 US
Inventor: Jeppesen et al.

CLAIMS LISTING

Claims:

1. (Currently amended) A compound of formula (Ia)



wherein ring A, fused to the ring containing X and N, represents a 5-6 membered cyclic ring optionally substituted with one or more halogen, perhalomethyl, hydroxy, nitro, cyano, formyl, or C₁₋₁₂alkyl, C₄₋₁₂-alkenynyl, C₂₋₁₂-alkenyl, C₂₋₁₂-alkynyl, C₁₋₁₂alkoxy, aryl, aryloxy, aralkyl, aralkoxy, heterocyclyl, heteroaryl, heteroaralkyl, heteroaryloxy, heteroaralkoxy, acyl, acyloxy, hydroxyC₁₋₁₂alkyl, amino, acylamino, C₁₋₁₂alkyl-amino, arylamino, aralkylamino, aminoC₁₋₁₂alkyl, C₁₋₁₂alkoxycarbonyl, aryloxycarbonyl, aralkoxycarbonyl, C₁₋₁₂alkoxyC₁₋₁₂alkyl, aryloxyC₁₋₁₂alkyl, aralkoxyC₁₋₁₂alkyl, C₁₋₁₂alkylthio, thioC₁₋₁₂alkyl, C₁₋₁₂alkoxycarbonylamino, aryloxycarbonylamino, aralkoxycarbonylamino, -COR¹¹, or -SO₂R¹², wherein R¹¹ and R¹² independently of each other are selected from hydroxy, halogen, perhalomethyl, C₁₋₄alkoxy or amino optionally substituted with one or more C₁-

Serial Number 09/995,137
Express Mail Number: EV 246877568 US
Inventor: Jeppesen et al.

alkyl, perhalomethyl or aryl; optionally substituted with one or more halogen, perhalomethyl, hydroxy, nitro or cyano;

ring B, fused to the ring containing X and N, represents a 5-6 membered cyclic ring optionally substituted with one or more halogen, perhalomethyl, hydroxy, nitro, cyano, formyl, or C₁₋₁₂alkyl, C₄₋₁₂-alkenynyl, C₂₋₁₂-alkenyl, C₂₋₁₂-alkynyl, C₁₋₁₂alkoxy, aryl, aryloxy, aralkyl, aralkoxy, heterocyclyl, heteroaryl, heteroaralkyl, heteroaryloxy, heteroaralkoxy, acyl, acyloxy, hydroxyC₁₋₁₂alkyl, amino, acylamino, C₁₋₁₂alkyl-amino, arylamino, aralkylamino, aminoC₁₋₁₂alkyl, C₁₋₁₂alkoxycarbonyl, aryloxycarbonyl, aralkoxycarbonyl, C₁₋₁₂alkoxyC₁₋₁₂alkyl, aryloxyC₁₋₁₂alkyl, aralkoxyC₁₋₁₂alkyl, C₁₋₁₂alkylthio, thioC₁₋₁₂alkyl, C₁₋₁₂alkoxycarbonylamino, aryloxycarbonylamino, aralkoxycarbonylamino, -COR¹¹, or -SO₂R¹², wherein R¹¹ and R¹² independently of each other are selected from hydroxy, halogen, perhalomethyl, C₁₋₆alkoxy or amino optionally substituted with one or more C₁₋₆alkyl, perhalomethyl or aryl; optionally substituted with one or more halogen, perhalomethyl, hydroxy, nitro or cyano;

X is -O-CH₂-O-, -(NR⁹)-S(O₂)-, wherein R⁹ is hydrogen, halogen, hydroxy, nitro, cyano, formyl, C₁₋₁₂alkyl, C₁₋₁₂alkoxy, aryl, aryloxy, aralkyl, aralkoxy, heterocyclyl, heteroaryl, heteroaralkyl, heteroaryloxy, heteroaralkoxy, acyl, acyloxy, hydroxyalkyl, amino, acylamino, C₁₋₁₂alkyl-amino, arylamino, aralkylamino, aminoC₁₋₁₂alkyl, C₁₋₁₂alkoxycarbonyl, aryloxycarbonyl, aralkoxycarbonyl, C₁₋₁₂alkoxyC₁₋₁₂alkyl, aryloxyC₁₋₁₂alkyl, aralkoxyC₁₋₁₂alkyl, C₁₋₁₂alkylthio, thioC₁₋₁₂alkyl, C₁₋₁₂alkoxycarbonylamino, aryloxycarbonylamino, aralkoxycarbonylamino, -COR¹¹, or -SO₂R¹², wherein R¹¹ and R¹² independently of each other are selected from hydroxy, halogen, C₁₋₆alkoxy, amino optionally substituted with one or more C₁₋₆alkyl, perhalomethyl or aryl;

Q is -O-, -S-, >SO₂, >NR¹³, wherein R¹³ is hydrogen or C₁₋₆alkyl,

Serial Number 09/995,137
Express Mail Number: EV 246877568 US
Inventor: Jeppesen et al.

Ar represents arylene, heteroarylene, or a divalent heterocyclic group optionally substituted with one or more C₁₋₆alkyl or aryl;

R⁵ represents hydrogen, hydroxy, halogen, C₁₋₁₂alkoxy, C₁₋₁₂alkyl, C₄₋₁₂-alkenynyl, C₂₋₁₂-alkenyl, C₂₋₁₂-alkynyl or aralkyl; optionally substituted with one or more halogen, perhalomethyl, hydroxy, nitro or cyano; or R⁵ forms a bond together with R⁶,

R⁶ represents hydrogen, hydroxy, halogen, C₁₋₁₂alkoxy, C₁₋₁₂alkyl, C₄₋₁₂-alkenynyl, C₂₋₁₂-alkenyl, C₂₋₁₂-alkynyl, acyl or aralkyl; optionally substituted with one or more halogen, perhalomethyl, hydroxy, nitro or cyano; or R⁶ forms a bond together with R⁵,

R⁷ represents hydrogen, C₁₋₁₂alkyl, C₄₋₁₂-alkenynyl, C₂₋₁₂-alkenyl, C₂₋₁₂-alkynyl, aryl, aralkyl, C₁₋₁₂alkoxyC₁₋₁₂alkyl, C₁₋₁₂alkoxycarbonyl, aryloxycarbonyl, C₁₋₁₂alkylaminocarbonyl, arylaminocarbonyl, acyl, heterocyclyl, heteroaryl or heteroaralkyl groups, optionally substituted with one or more halogen, perhalomethyl, hydroxy, nitro or cyano;

R⁸ represents hydrogen, C₁₋₁₂alkyl, C₄₋₁₂-alkenynyl, C₂₋₁₂-alkenyl, C₂₋₁₂-alkynyl, aryl, aralkyl, heterocyclyl, heteroaryl or heteroaralkyl groups; optionally substituted with one or more halogen, perhalomethyl, hydroxy, nitro or cyano;

Y represents oxygen, sulphur or NR¹⁰, where R¹⁰ represents hydrogen, C₁₋₁₂alkyl, aryl, hydroxyC₁₋₁₂alkyl or aralkyl groups or when Y is NR¹⁰, R⁸ and R¹⁰ may form a 5 or 6 membered nitrogen containing ring, optionally substituted with one or more C₁₋₆alkyl;

n is an integer ranging from 1 to 4 and m is an integer ranging from 0 to 1,

provided that A or B does not represent phenyl:

or a pharmaceutically acceptable salt thereof.

Serial Number 09/995,137
Express Mail Number: EV 246877568 US
Inventor: Jeppesen et al.

2. (Previously presented) The compound according to claim 1, wherein ring A, fused to the ring containing X and N, represents a 5-6 membered cyclic ring optionally substituted with one or more hydrogen, halogen, perhalomethyl, hydroxy, cyano, or C₁₋₇-alkyl, C₄₋₇-alkenynyl, C₂₋₇-alkenyl, C₂₋₇-alkynyl, C₁-alkoxy, aryl, aryloxy, aralkyl, aralkoxy, heterocyclyl, heteroaryl, heteroaralkyl, heteroaryloxy, heteroaralkoxy, acyl, acyloxy, hydroxyC₁₋₇-alkyl, amino, acylamino, C₁₋₇-alkyl-amino, arylamino, aralkylamino, aminoC₁₋₇-alkyl, C₁₋₇-alkoxyC₁₋₇-alkyl, aryloxyC₁₋₇-alkyl, aralkoxyC₁₋₇-alkyl, C₁₋₇-alkylthio, thioC₁₋₇-alkyl, C₁₋₇-alkoxycarbonylamino, aryloxcarbonylamino, aralkoxycarbonylamino, -COR¹¹, or -SO₂R¹², wherein R¹¹ and R¹² independently of each other are selected from hydroxy, perhalomethyl or amino optionally substituted with one or more C₁₋₇-alkyl, perhalomethyl or aryl; optionally substituted with one or more halogen, perhalomethyl, hydroxy or cyano.

3. (Cancelled)

4. (Cancelled)

5. (Cancelled)

6. (Cancelled)

7. (Previously presented) The compound according to claim 1, wherein ring B, fused to the ring containing X and N, represents a 5-6 membered cyclic ring optionally substituted with one or more hydrogen, halogen, perhalomethyl, hydroxy, cyano, or C₁₋₇-alkyl, C₄₋₇-alkenynyl, C₂₋₇-alkenyl, C₂₋₇-alkynyl, C₁-alkoxy, aryl, aryloxy, aralkyl, aralkoxy, heterocyclyl, heteroaryl, heteroaralkyl, heteroaryloxy, heteroaralkoxy, acyl, acyloxy, hydroxyC₁₋₇-alkyl,

Serial Number 09/995,137
Express Mail Number: EV 246877568 US
Inventor: Jeppesen et al.

amino, acylamino, C₁₋₇alkyl-amino, arylamino, aralkylamino, aminoC₁₋₇alkyl, C₁₋₇alkoxyC₁₋₇alkyl, aryloxyC₁₋₇alkyl, aralkoxyC₁₋₇alkyl, C₁₋₇alkylthio, thioC₁₋₇alkyl, C₁₋₇alkoxycarbonyl-amino, aryloxycarbonylamino, aralkoxycarbonylamino, -COR¹¹, or -SO₂R¹², wherein R¹¹ and R¹² independently of each other are selected from hydroxy, perhalomethyl or amino optionally substituted with one or more C₁₋₄alkyl, perhalomethyl or aryl; optionally substituted with one or more halogen, perhalomethyl, hydroxy or cyano.

8. (Cancelled)

9. (Cancelled)

10. (Cancelled)

11. (Cancelled)

12. (Cancelled)

13. (Cancelled)

14. (Cancelled)

15. (Cancelled)

16. (Previously presented) The compound according to claim 1 wherein Q is -O- or -S-.

17. (Cancelled)

Serial Number 09/995,137
Express Mail Number: EV 246877568 US
Inventor: Jeppesen et al.

18. (Previously presented) The compound according to claim 1 wherein Ar represents arylene, heteroarylene, or a divalent heterocyclic group optionally substituted with one or more C₁₋₆alkyl or aryl;

R⁵ represents hydrogen, hydroxy, halogen, C₁₋₇alkoxy, C₁₋₇alkyl, C₄₋₇alkenynyl, C₂₋₇alkenyl, C₂₋₇alkynyl; or R⁵ forms a bond together with R⁶,

R⁶ represents hydrogen, hydroxy, halogen, C₁₋₇alkoxy, C₁₋₇alkyl, C₄₋₇alkenynyl, C₂₋₇alkenyl, C₂₋₇alkynyl; or R⁶ forms a bond together with R⁵,

R⁷ represents hydrogen, C₁₋₇alkyl, C₄₋₇alkenynyl, C₂₋₇alkenyl, C₂₋₇alkynyl, aryl, aralkyl, C₁₋₇alkoxyC₁₋₇alkyl, C₁₋₇alkoxycarbonyl, aryloxy carbonyl, C₁₋₇alkylaminocarbonyl, arylaminocarbonyl, acyl, heterocyclyl, heteroaryl or heteroaralkyl groups;

R⁸ represents hydrogen, C₁₋₇alkyl, C₄₋₇alkenynyl, C₂₋₇alkenyl, C₂₋₇alkynyl, aryl, aralkyl, heterocyclyl, heteroaryl or heteroaralkyl;

Y represents oxygen, sulphur or NR¹⁰, where R¹⁰ represents hydrogen, C₁₋₇alkyl, hydroxyC₁₋₇alkyl;

n is an integer ranging from 2 to 3 and m is an integer ranging from 0 to 1.

19. (Cancelled)

20. (Cancelled)

21. (Cancelled)

22. (Cancelled)

23. (Previously presented) The compound according to claim 1 wherein A is 5 membered cyclic ring containing S.

Serial Number 09/995,137
Express Mail Number: EV 246877568 US
Inventor: Jeppesen et al.

24. (Previously presented) The compound according to claim 1 wherein B is 5 membered cyclic ring containing S.

25. (Cancelled)

26. (Previously presented) The compound according to claim 1 wherein n is 2.

27. (Previously presented) The compound according to claim 1 wherein Q is -O-.

28. (Previously presented) The compound according to claim 1 wherein m is 1.

29. (Previously presented) The compound according to claim 1 wherein Ar is phenylene.

30. (Previously presented) The compound according to claim 1 wherein R⁶ is H.

31. (Previously presented) The compound according to claim 1 wherein R⁷ is ethyl.

32. (Previously presented) The compound according to claim 1 wherein Y is oxygen.

33. (Previously presented) The compound according to claim 1 wherein R⁸ is H.

34. (Cancelled)

35. (Cancelled)

36. (Previously presented) A pharmaceutical composition comprising as an active ingredient, the compound according to claim 1 or a pharmaceutically acceptable salt thereof together with a pharmaceutically acceptable carrier or diluent.

Serial Number 09/995,137
Express Mail Number: EV 246877568 US
Inventor: Jeppesen et al.

37. (Cancelled)

38. (Cancelled)

39. (Cancelled)

40. (Cancelled)

41. (Cancelled)

42. (Cancelled)

43. (Previously presented) A method for the treatment of conditions mediated by nuclear receptors, the method comprising administering to a subject in need thereof an effective amount of the compound according to claim 1 or a pharmaceutically acceptable salt thereof.

44. (Previously presented) A method for the treatment of diabetes, the method comprising administering to a subject in need thereof an effective amount of the compound according to claim 1 or a pharmaceutically acceptable salt thereof.

45. (Cancelled)

46. (Cancelled)

47. (Cancelled)

48. (Cancelled)

49. (Cancelled)

Serial Number 09/995,137
Express Mail Number: EV 246877568 US
Inventor: Jeppesen et al.

50. (Previously presented) The pharmaceutical composition of claim 36, wherein the compound is in a unit dosage form in the amount of between 0.05 to about 100 mg.

51. (Previously presented) The pharmaceutical composition of claim 36, wherein the compound is in a unit dosage form in the amount of between 0.1 to about 50 mg.

52. (Previously presented) The method of claim 44, wherein the compound is administered by oral, nasal, transdermal, pulmonary, or parenteral administration.

53. (Previously presented) A method for the treatment of obesity, the method comprising administering to a subject in need thereof an effective amount of the compound according to claim 1 or a pharmaceutically acceptable salt thereof.

54. (Previously presented) The method of claim 53, wherein the compound is administered by oral, nasal, transdermal, pulmonary, or parenteral administration.

55. (Previously presented) A method for the treatment of conditions mediated by the Peroxisome Proliferator-Activated Receptors (PPAR), the method comprising administering to a subject in need thereof an effective amount of the compound according to claim 1 or a pharmaceutically acceptable salt thereof.

Serial Number 09/995,137
Express Mail Number: EV 246877568 US
Inventor: Jeppesen et al.

The Examiner is hereby invited to contact the undersigned by telephone if there are any questions concerning this amendment or application. Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,



Date: September 25, 2003

Rosemarie R. Wilk-Orescan
Registration Number 45,220
Novo Nordisk Pharmaceuticals, Inc.
100 College Road West
Princeton, NJ 08540
(609) 987-5969

Customer Number

23650

PATENT TRADEMARK OFFICE